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EXAMINER

FOX, BRYAN J

ART UNIT PAPER NUMBER

2686

7

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/931,280

Applicant(s)

OHLSSON ET AL.

Examiner

Bryan J Fox

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4-6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 7 and 15, it is not clear what is included in a "convention handover"; the word "convention" renders the claim indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6-10, and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Nyhart et al (US005408517A).

Regarding claim 1, Nyhart discloses a method for synchronizing handoff (see column 1, lines 6-9) in a system where a mobile phone is in a handoff from a source base 104 to a destination base 106 (see figure 1), which reads on the claimed "for use in a telecommunications system having a source base station and a destination base station where a specified mobile station establishes a connection with the source base station". Nyhart further discloses that the destination base 106 and the source base

104 are synchronized and the destination base will only see the communication unit activity. Then the controller 102 tells the source base 104 to begin the handoff (see column 2, lines 37-44 and figure 1), which reads on the claimed "initiating at the destination base station a preliminary portion of a handover sequence for the specified mobile station, the preliminary portion of the handover sequence including uplink radio synchronization with respect to the specified mobile station". The destination base station begins transmitting in step 10 (see column 3, lines 14-17), which reads on the claimed "initiating at the destination base station another portion of a handover sequence for the specified mobile station".

Regarding claim 2, Nyhart discloses a method for synchronizing handoff (see column 1, lines 6-9) in a system where a mobile phone is in a handoff from a source base 104 to a destination base 106 (see figure 1), which reads on the claimed "for use in a telecommunications system having a source base station and a destination base station where a specified mobile station establishes a connection with the source base station". Nyhart further discloses that the destination base 106 and the source base 104 are synchronized and the destination base will only see the communication unit activity. Then the controller 102 tells the source base 104 to begin the handoff (see column 2, lines 37-44 and figure 1), which reads on the claimed "initiating at the destination base station a preliminary portion of a handover sequence for the specified mobile station" and "the preliminary portion of the handover sequence involving an operation between the destination base station and the specified mobile station that are more time critical than operations performed during the another portion of the handover

sequence". The destination base station begins transmitting in step 10 (see column 3, lines 14-17), which reads on the claimed "initiating at the destination base station another portion of a handover sequence for the specified mobile station".

Regarding claim 6, Nyhart discloses that before the handover occurs, the destination base synchronizes (see column 2, lines 39-44), which reads on the claimed "the preliminary portion of the handover sequence comprises...performing uplink radio synchronization with respect to the specified mobile station and the destination base station".

Regarding claim 7, Nyhart discloses a preliminary portion of the handover sequence and another portion of the handover sequence as claimed in claims 1 or 2 (see rejections of claims 1 and 2 above). In a handover, the last portion is where the source base station stops transmission and the destination base station begins transmission. Nyhart discloses this as the last step in the sequence (see step 22, figure 2), which reads on the claimed "another portion of the handover sequence comprises remaining events of a convention handover sequence".

Regarding claim 8, Nyhart discloses that the destination base station begins transmitting in step 10 (see column 3, lines 14-17) after synchronization, which reads on the claimed "the another portion of the handover sequence comprises one or more of the following...turning on a transmitter at the destination base station to transmit to the specified mobile station".

Regarding claim 9, Nyhart discloses a method for synchronizing handoff (see column 1, lines 6-9) in a system where a mobile phone is in a handoff from a source

base 104 to a destination base 106 (see figure 1), which reads on the claimed "telecommunications system comprising a control node and a destination base station". Nyhart further discloses that the destination base 106 and the source base 104 are synchronized and the destination base will only see the communication unit activity. Then the controller 102 tells the source base 104 to begin the handoff (see column 2, lines 37-44 and figure 1), which reads on the claimed "the control node initiates at the destination base station a preliminary portion of a handover sequence for the specified mobile station" and "the destination base station, in performing the preliminary portion of the handover sequence, performs uplink radio synchronization with respect to the specified mobile station". The destination base station begins transmitting in step 10 (see column 3, lines 14-17), which reads on the claimed "then subsequently initiates at the destination base station another portion of a handover sequence for the specified mobile station".

Regarding claim 10, Nyhart discloses a method for synchronizing handoff (see column 1, lines 6-9) in a system where a mobile phone is in a handoff from a source base 104 to a destination base 106 (see figure 1), which reads on the claimed "telecommunications system comprising a control node and a destination base station". Nyhart further discloses that the destination base 106 and the source base 104 are synchronized and the destination base will only see the communication unit activity. Then the controller 102 tells the source base 104 to begin the handoff (see column 2, lines 37-44 and figure 1), which reads on the claimed "the control node initiates at the destination base station a preliminary portion of a handover sequence for the specified

mobile station” and “the destination base station, in performing the preliminary portion of the handover sequence, performs operations which are more time critical than operations included in the another portion of the handover sequence”. The destination base station begins transmitting in step 10 (see column 3, lines 14-17), which reads on the claimed “then subsequently initiates at the destination base station another portion of a handover sequence for the specified mobile station”.

Regarding claim 14, Nyhart discloses that before the handover occurs, the destination base synchronizes (see column 2, lines 39-44), which reads on the claimed “the preliminary portion of the handover sequence comprises...performing uplink radio synchronization with respect to the specified mobile station and the destination base station”.

Regarding claim 15, Nyhart discloses a preliminary portion of the handover sequence and another portion of the handover sequence as claimed in claims 1 or 2 (see rejections of claims 1 and 2 above). In a handover, the last portion is where the source base station stops transmission and the destination base station begins transmission. Nyhart discloses this as the last step in the sequence (see step 22, figure 2), which reads on the claimed “another portion of the handover sequence comprises remaining events of a convention handover sequence”.

Regarding claim 16, Nyhart discloses that the destination base station begins transmitting in step 10 (see column 3, lines 14-17) after synchronization, which reads on the claimed “the another portion of the handover sequence comprises one or more of

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the following...turning on a transmitter at the destination base station to transmit to the specified mobile station".

Regarding claim 17, Nyhart discloses that the controller 102 (see figure 1) can be a network controller which interfaces a public switch telephone network with a plurality of base stations 104 and 106 (see column 1, lines 62-67), which reads on the claimed "the control node is a radio network control (RNC) node of a ratio access network".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyhart.

Regarding claim 7, Nyhart discloses a preliminary portion of the handover sequence and another portion of the handover sequence as claimed in claims 1 or 2 (see rejections of claims 1 and 2 above). Nyhart fails to expressly disclose that the if a

sequence is broken into two parts, it would have been obvious to a person of ordinary skill in the art at the time of the invention perform in the second part the remaining events not included in the first part as claimed.

Regarding claim 15, Nyhart discloses a preliminary portion of the handover sequence and another portion of the handover sequence as claimed in claims 9 or 10 (see rejections of claims 9 and 10 above). If a sequence is broken into two parts, it would have been obvious to a person of ordinary skill in the art at the time of the invention perform in the second part the remaining events not included in the first part as claimed.

Claims 3-5 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyhart in view of Blakeney, II et al (US005267261A).

Regarding claims 3 and 11, Nyhart fails to expressly disclose measurements during the handover.

Blakeney, II et al discloses a system where the mobile station measure the pilot strength to trigger and handoff and again to trigger the source base station to discontinue transmission (see figure 8), which reads on the claimed "initiating the preliminary portion of the handover sequence upon receipt of a first measurement report from the specified mobile station; and initiating the another portion of the handover sequence upon receipt of a second measurement report from the specified mobile station".

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Nyhart to include the above measurements as taught by

Blakeney, II et al in order to provide greater service reliability and quality as suggested by Blakeney, II et al (see column 3, lines 19-24).

Regarding claims 4 and 12, the combination of Nyhart and Blakeney, II et al discloses that upon receipt of the first pilot signal measurement signal, the MTSO communicates with base station B relevant setup information relative to the mobile station to establish communications with the mobile station (see Blakeney, II et al column 25, lines 59-62), which reads on the claimed "upon receipt of the first measurement report from the specified mobile station, a control node allocates uplink resources for the specified mobile station to communicate with the destination base station".

Regarding claims 5 and 13, the combination of Nyhart and Blakeney, II et al discloses that both measurements are pilot strength measurements (see Blakeney, II et al figure 8), which reads on the claimed "the first measurement report from the specified mobile station and the second measurement report from the specified mobile station include differing values of a signal quality measurement of a pilot signal as received by the specified mobile station".

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bryan J Fox whose telephone number is (703) 305-8994. The examiner can normally be reached on Monday through Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (703) 305-4379. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJF


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